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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,629	01/14/2002	Yuzuru Suzuki	SUM-02301	4803

26339 7590 10/23/2002

PATENT GROUP
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EXAMINER

PEREZ, GUILLERMO

ART UNIT PAPER NUMBER

2834

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,629

Applicant(s)

SUZUKI ET AL.

Examiner

Guillermo Perez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2, 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saether (U. S. Pat. 5,369,324) in view of E. S. Beyers (U. S. Pat. 3,525,005) and further of Andrey (U. S. Pat. 5,723,931) in view of Keljik (Electric Motors and Motor Controls; Jeff Keljik).

Saether substantially teaches the claimed invention except that it does not show that the cylindrical field magnet is fixed to the holder means. Saether does not disclose that the rotating shaft is press-fitted at a center of the holder means. Saether does not disclose that the stator unit is circumferentially arranged around the rotor.

E. S. Beyers discloses that the field magnet (20) is fixed to the holder means (18,26,24). E. S. Beyers discloses that the rotating shaft is mounted at a center of the holder means. E. S. Beyers' invention has the purpose of maintaining a substantially constant voltage over a wide range of speeds.

Andrey discloses that the stator unit is circumferentially arranged around the rotor for the purpose of showing the different configurations in which a motor can be arranged to convert the electromagnetic force into a mechanical output.

Keljik discloses that is well known in the art that a motor is the reverse process of a generator.

It would have been obvious at the time the invention was made to modify the motor of Saether and provide it with the holder means, shaft, and inner dynamoelectric rotor configuration disclosed by E. S. Beyers, Andrey, and Keljik for the purpose of maintaining a substantially constant voltage over a wide range of speeds.

Referring to claim 1, no patentable weight has been given to the method of manufacturing limitations (i. e. "press-fitted") since "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to shift the respective stages within a range of 12° to 50° in an electrical angle since it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the stator with eight poles and six stator units in which

basic degree of a cogging torque thereof is 24 since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saether in view of E. S. Beyers and further of Andrey in view of Keljik as applied to claim 1 above, and further in view of Hoemann et al. (U. S. Pat. 5,034,642).

Saether, E. S. Beyers, Andrey, and Keljik substantially teaches the claimed invention except that it does not show that a rotor position detection element is adjusted by 1/2 the shift amount of respective stages.

Hoemann et al. disclose that a rotor position detection element (17) is adjusted by 1/2 the shift amount of respective stages (25,27 and figures 3-7). The invention of Hoemann et al. has the purpose of maintaining an optimum sensor position relative to the rotor field without requiring physical adjustment of the sensor.

It would have been obvious at the time the invention was made to modify the motor of Saether, E. S. Beyers, Andrey, and Keljik and provide it with the sensor configuration disclosed by Hoemann et al. for the purpose of maintaining an optimum sensor position relative to the rotor field without requiring physical adjustment of the sensor.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust the detection element by 1/2 the shift amount of respective stages since it has been held that discovering an optimum value of a result

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effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

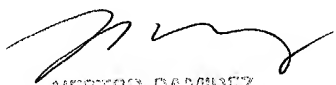
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

Guillermo Perez
October 17, 2002


NESTOR RAMIREZ
SUPERVISOR/ART UNIT EXAMINER
TECHNOLOGY CENTER 2800